REMARKS

Claims 1-20 are pending in the application; the status of the claims is as follows:

Claims 1, 2, 6-8, 10-12, and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,867,741 to Maruyama et al. (hereinafter referred to as "the Maruyama patent") in view of U.S. Patent No. 5,764,285 to Ochi et al. (hereinafter referred to as "the Ochi patent").

Claims 3-5 and 15-17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the Maruyama patent, the Ochi patent as applied to claims 1 and 10 above, and further in view of U.S. Patent No. 5,946,028 to Ishikawa (hereinafter referred to as "the Ishikawa patent").

Claim 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable over the Maruyama patent in view of the Ochi patent as applied to claim 1 above, and further in view of U.S. Patent No. 4,553,170 to Aoki et al. (hereinafter referred to as "the Aoki patent").

Claims 13, 18, and 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the Maruyama patent in view of the Ochi patent as applied to claim 10 above, and further in view of Applicants' prior art.

Claim 14 is rejected under 35 U.S.C. § 103(a) as being unpatentable over the Maruyama patent in view of the Ochi patent as applied to claim 10 above, and further in view of the Aoki patent.

Claims 1, 10 and 20 have been amended to more particularly point out and distinctly claim the claimed invention and to correct matters of form. These changes do not introduce any new matter and are not necessitated by reasons related to patentability.

35 U.S.C. § 103(a) Rejections

The rejection of claims 1, 2, 6-8, 10-12, and 20 under 35 U.S.C. § 103(a) as being unpatentable over Maruyama in view of Ochi, is respectfully traversed based on the following.

Maruyama shows a camera combining film photography capability with electronic photography capability. The image is formed using image pick-up lens 1. The image is then partially reflected by fixed half mirror 4 on to area sensor 15 via image-forming lens 14. The image formed on area sensor 15 is processed by signal processor 22. The resulting image data may be stored in non-volatile memory 26 or displayed on LCD 23 (col. 4, lines 50-54).

A portion of the image passes through half mirror 4 and is reflected off movable half mirror 5 through various components to finder eyepiece 31. With movable half mirror 5 in the down position, a portion of the image passes through movable half mirror 5, off of sub-mirror 32, through separator optical system 16 to line sensor 17. This forms a focus detection system (col. 5, lines 10-16). Of importance, the line image captured by line sensor 17 is only used by CPU 27 to perform focusing operations. There is no suggestion to capture and store any image captured by line sensor 17. This is a fixed line sensor device used solely for focusing. When movable half mirror 5 is raised, shutter 6 is opened and the image is formed on film 7.

Ochi shows an electronic camera (1b of Figure 5) including a line sensor 11 used in combination with and area sensor 12. Line sensor 11 is driven by scan motor 23 through line scanning mechanism 20b so that the line sensor can capture the entire image (col. 5, lines 58-67). To overcome the limitations of the area sensor 12 and line sensor 11, the two are synthesized (col. 5, lines 29-41).

In contrast to the cited references, claim 1 includes:

> a recorder for recording on a recording medium an image sensed by said image sensor in accordance with recording instructions;
> a semitransparent mirror which rotates about an axis in a direction perpendicular to the optical axis of the taking lens so as to move between an advanced position intersecting at an inclination an optical path from the taking lens to the image sensor for photographing in a first photographic mode, and a retracted position removed from the optical path for photographing in a second photographic mode; ...

In the Office Action, the image sensor of claim 1 is cited as corresponding to element 15 of Figure 1 of Maruyama. The Office Action then cites element 5 as corresponding to the semitransparent mirror of claim 1. However, the semitransparent mirror must intersect "the optical path from the taking lens to the image sensor for photographing in a first photographic mode." Movable half mirror 5 is never in the path from the image pickup lens 1 to area sensor 15. Therefore, area sensor 15 cannot correspond to the "image sensor" limitation in claim 1.

In other parts of the Office Action, a "linear sensor" is cited. The movable semitransparent mirror 5 is in the optical path between image pickup lens 1 and line sensor 17. Therefore, it is assumed that the Office Action intends to cite line sensor 17 as corresponding to the image sensor limitation in claim 1. However, line sensor 17 also fails to meet the limitations of the image sensor.

Claim 1 requires "a recorder for recording on a recording medium an image sensed by said image sensor." The output of line sensor 17 is never recorded. As stated in Maruyama (col. 5, lines 10-26):

> The sub-mirror 32, separator optical system 16, line sensor 17, and the like construct a publicly known focus detection system using a phase difference method. Therefore, the CPU 27 obtains the distance between two images on the basis of a signal inputted via the line sensor driver 19, and calculates a driving amount for driving the image pickup lens 1 to a focused position. A zoom and focusing driver 11 is connected to lenses 1a and 1b of the image

> pickup lens 1, the driver 11 controlling a driving source for focusing and zooming with driving the image pickup lens 1. Therefore, both lenses 1a and 1b are driven and controlled by the zoom and focusing driver 11. Further, this zoom and focusing driver 11 has encoders (not shown) generating signals corresponding to the movement of respective lenses. Then, the CPU 27 performs focusing on the basis of the calculated driving amount and encoder outputs.

Thus, the sole function of line sensor 17 is for focusing. For several reasons, Maruyama does not suggest recording the image captured by the line sensor 17. The image received by line sensor 17 passes through optical separator system 16. The separated images are not aligned when the image pick-up lens is not focused. The focus mechanism adjusts the focus of the image pick-up lens until the separated images are aligned (col. 5, lines 10-26). This process works well for focusing, but reduces the quality of the image. One skilled in the art would not use this distorted image for image capture. Furthermore, Maruyama shows image capture by area sensor 15 (col. 4, lines 38-49). Using line sensor 17 to capture an image would be duplicative, but with lower quality. One skilled in the art would not modify Maruyama to get a duplicate, poor quality image.

Furthermore, line sensor 17 is a fixed line sensor. As is shown in Ochi, a line sensor only captures an entire image when it is combined with some type of scanning mechanism. In Figures 1 and 4, dichroic mirror 21 is moved to scan the image onto line sensor 11. In Figures 5 and 6, the line sensor 11 itself is moved to provide scanning. A fixed line sensor only receives a linear portion of the image. Line sensor 17 in Maruyama is fixed and thus will only receive one line of pixels of the image. This is perfectly adequate for the function of line sensor 17, which is to measure the focus of image pick-up lens 1. Contrary to the suggestion of the office action in the first paragraph of page 4, one skilled in the art would not have been motivated to replace the fixed line sensor 17 with an area sensor or to modify the line sensor to include a scanning function. Both of these options would simply add expense and do little or nothing to improve the function of the focusing mechanism. In summary, neither area sensor 15 nor line sensor 17, whether combined with the teaching of Ochi or not, shows or suggests the limitations of the image sensor of claim 1. Therefore, claim 1 is patentably distinct from the cited references.

Claims 2 and 6-8 are dependent upon claim 1, and thus include every limitation of claim 1. Therefore claims 2 and 6-8 are also patentably distinct from the cited references.

Also in contrast to the cited references, claim 10 includes:

> an image sensor disposed at a position at which an image is to be formed by a taking lens; and
>
> an optical element movable between an advanced position intersecting at an inclination an optical path from the taking lens to said image sensor, and a retracted position removed from the optical path,
>
> wherein said digital camera is controllable under a first photographic mode wherein said optical element is set at the advanced position for photography, said image sensor receiving said image through the semitransparent mirror in said advanced position, and a second photographic mode wherein said optical element is set at the retracted position for photography, said image sensor receiving said image from said taking lens in the retracted position ...

Thus, claim 10 requires that the movable optical element be in the optical path from the taking lens to the image sensor in the advanced position, and that the image sensor receives the image from the taking lens when the optical element is in the retracted position. The cited references do not show or suggest these limitations. Mirror 5 of Maruyama is not in the optical path of image sensor 15. In addition, line sensor 17 does not receive any image when mirror 5 is in the retracted position. Therefore, neither sensor of Maruyama meets the limitations of claim 10. Ochi also does not show or suggest these limitations. Therefore, the cited references do not support a *prima facie* case for obviousness of claim 10. MPEP §2143.03. Claims 11 and 12 are dependent upon claim 10, and thus include every limitation of claim 10. Therefore, claims 11 and 12 are also not obvious over the cited references.

Also in contrast to the cited references, claim 20 includes:

> an optical element movable between an advanced position interposed at an inclination in an optical path from the taking lens to said image sensor, and a retracted position where the optical element is not interposed in the optical path from the taking lens to the image sensor,

> wherein said digital camera is controllable under a first photographic mode wherein said optical element is set at the advanced position for photography, and a second photographic mode wherein said optical element is set at the retracted position for photography, ...

In Maruyama, when movable half mirror 5 is in the raised position, there is no optical path from the taking lens to the line sensor 17. Therefore, the cited references do not show or suggest "a retracted position where the optical element is not interposed in the optical path from the taking lens to the image sensor." Therefore, the cited references do not show or suggest every element of claims 20, and thus do not support a *prima facie* case for obviousness of claim 20.

Accordingly, it is respectfully requested that the rejection of claims 1, 2, 6-8, 10-12, and 20 under 35 U.S.C. § 103(a) as being unpatentable over the Maruyama patent in view of the Ochi patent, be reconsidered and withdrawn.

The rejection of claims 3-5 and 15-17 under 35 U.S.C. § 103(a) as being unpatentable over the Maruyama patent, the Ochi patent as applied to claims 1 and 10 above and further in view of the Ishikawa patent, is respectfully traversed based on the following.

Claims 3-5 are dependent upon claim 1 and thus include all limitations of claim 1. As noted above, Maruyama and Ochi do not show or suggest an image sensor meeting the limitations of claim 1. Ishikawa does not provide any showing or suggestion that overcomes the deficiencies of the previously cited references. Therefore, the combination of these references does not support a *prima facie* case for obviousness of claim 1. Because claims 3-5 include all of the limitations of claim 1, they are also not obvious over the combination of Maruyama, Ochi and Ishikawa and are patentably distinct from the cited references.

Claims 15-17 are dependent upon claim 10 and thus include all limitations of claim 10. As noted above, Maruyama and Ochi do not show or suggest "a second

photographic mode wherein said optical element is set at the retracted position for photography, said image sensor receiving said image from said taking lens in the retracted position." Ishikawa does not provide any showing or suggestion that overcomes the deficiencies of the cited references. Therefore, the combination of these references does not support a *prima facie* case for obviousness of claim 10. Because claims 15-17 include all of the limitations of claim 10, they are also not obvious over the combination of Maruyama, Ochi and Ishikawa and are patentably distinct from the cited references.

Accordingly, it is respectfully requested that the rejection of claims 3-5 and 15-17 under 35 U.S.C. § 103(a) as being unpatentable over the Maruyama patent, the Ochi patent as applied to claims 1 and 10 above and further in view of the Ishikawa patent, be reconsidered and withdrawn.

The rejection of claim 9 under 35 U.S.C. § 103(a) as being unpatentable over Maruyama in view of Ochi as applied to claim 1 above and further in view of Aoki, is respectfully traversed based on the following.

Claim 9 is indirectly dependent upon claim 1 and thus includes all limitations of claim 1. As noted above, Maruyama and Ochi do not show or suggest an image sensor meeting the limitations of claim 1. Aoki does not provide any showing or suggestion that overcomes the deficiencies of the cited references. Therefore, the combination of these references does not support a *prima facie* case for obviousness of claim 1. Because claim 9 includes all of the limitations of claim 1, it is also not obvious over the combination of Maruyama, Ochi and Aoki and is patentably distinct from the cited references.

Accordingly, it is respectfully requested that the rejection of claim 9 under 35 U.S.C. § 103(a) as being unpatentable over Maruyama in view of Ochi as applied to claim 1 above and further in view of the Aoki patent, be reconsidered and withdrawn.

The rejection of claims 13, 18, and 19 under 35 U.S.C. § 103(a) as being unpatentable over Maruyama in view of Ochi as applied to claim 10 above and further in view of Applicants' prior art, is respectfully traversed based on the following.

Claims 13, 18 and 19 are dependent upon claim 10 and thus include all limitations of claim 10. As noted above, Maruyama and Ochi do not show or suggest "a second photographic mode wherein said optical element is set at the retracted position for photography, said image sensor receiving said image from said taking lens in the retracted position." Applicants' statement of the prior art on page 3, lines 4-15 does not provide any showing or suggestion that overcomes the deficiencies of the cited references. Therefore, the combination of these references and applicants' statement does not support a *prima facie* case for obviousness of claim 10. Because claims 13, 18 and 19 include all of the limitations of claim 10, they are also not obvious over the combination of Maruyama, Ochi and Applicants' statement of the prior art on page 3, lines 4-15 and are patentably distinct from the cited references.

Accordingly, it is respectfully requested that the rejection of claims 13, 18, and 19 under 35 U.S.C. § 103(a) as being unpatentable over Maruyama in view of Ochi as applied to claim 10 above and further in view of Applicants' prior art, be reconsidered and withdrawn.

The rejection of claim 14 under 35 U.S.C. § 103(a) as being unpatentable over Maruyama in view of Ochi as applied to claim 10 above and further in view of Aoki, is respectfully traversed based on the following.

Claim 14 is dependent upon claim 10 and thus includes all limitations of claim 10. As noted above, Maruyama and Ochi do not show or suggest "a second photographic mode wherein said optical element is set at the retracted position for photography, said image sensor receiving said image from said taking lens in the retracted position." Aoki does not provide any showing or suggestion that overcomes the deficiencies of the cited references. Therefore, the combination of these references does not support a *prima facie*

case for obviousness of claim 10. Because claim 14 includes all of the limitations of claim 10, it is also not obvious over the combination of Maruyama, Ochi and Aoki and is patentably distinct from the cited references.

Accordingly, it is respectfully requested that the rejection of claim 14 under 35 U.S.C. § 103(a) as being unpatentable over Maruyama in view of Ochi as applied to claim 10 above and further in view of Aoki, be reconsidered and withdrawn.

CONCLUSION

Wherefore, in view of the foregoing amendments and remarks, this application is considered to be in condition for allowance, and an early reconsideration and a Notice of Allowance are earnestly solicited.

This Amendment does not increase the number of independent claims, does not increase the total number of claims, and does not present any multiple dependency claims. Accordingly, no fee based on the number or type of claims is currently due. However, if a fee, other than the issue fee, is due, please charge this fee to Sidley Austin Brown & Wood LLP's Deposit Account No. 18-1260.

Any fee required by this document other than the issue fee, and not submitted herewith should be charged to Sidley Austin Brown & Wood LLP's Deposit Account No. 18-1260. Any refund should be credited to the same account.

If an extension of time is required to enable this document to be timely filed and there is no separate Petition for Extension of Time filed herewith, this document is to be construed as also constituting a Petition for Extension of Time Under 37 C.F.R. § 1.136(a) for a period of time sufficient to enable this document to be timely filed.

Any other fee required for such Petition for Extension of Time and any other fee required by this document pursuant to 37 C.F.R. §§ 1.16 and 1.17, other than the issue fee,

and not submitted herewith should be charged to Sidley Austin Brown & Wood LLP's Deposit Account No. 18-1260. Any refund should be credited to the same account.

Respectfully submitted,

By: _____

Douglas A. Sorensen
Registration No. 31,570
Attorney for Applicants

TNT:DAS:pm:bar:jkk
SIDLEY AUSTIN BROWN & WOOD LLP
717 N. Harwood, Suite 3400
Dallas, Texas 75201
Direct: (214) 981-3482
Main: (214) 981-3300
Facsimile: (214) 981-3400
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